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Editors-in-Chief: M.P. Mengüç, M.I. Mishchenko and L.S. Rothman



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SPECIAL ISSUE

ELECTROMAGNETIC AND LIGHT SCATTERING BY NONSPHERICAL PARTICLES XIV

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Preface

Electromagnetic and Light Scattering by Nonspherical Particles XIV



The 14th Electromagnetic and Light Scattering Conference (ELS-XIV) was held at the Université de Lille 1, Villeneuve d'Ascq, France on 17–21 June 2013 (Fig. 1). This conference built on the success of the previous meetings held in Amsterdam (1995) [1], Helsinki (1997) [2], New York City (1998) [3], Vigo (1999), Halifax (2000) [4], Gainesville (2002) [5], Bremen (2003) [6], Salobreña (2005) [7], St. Petersburg (2006) [8], Bodrum (2007) [9], Hatfield (2008) [10], Helsinki (2010) [11], and Taormina (2011) [12], as well as the workshops held in Bremen (1996, 1998) and Moscow (1997). The main objective of all these meetings has been to bring together scientists, engineers, and Ph.D. students researching various aspects of electromagnetic scattering and to provide a relaxed and stimulating atmosphere for in-depth discussion of theory, measurements, and applications.

The conference was attended by 200 scientists from 26 countries. The scientific program included one plenary lecture, 12 invited reviews, 100 contributed oral talks, and 86 poster presentations. The program, the abstracts, and the slides of the oral presentations are available at the conference web site <http://www-loa.univ-lille1.fr/ELS-XIV>.

To highlight one of the traditional ELS themes, the ELS-XIV featured a special session on “Remote sensing of aerosols and clouds using polarimetric observations”. This session was sponsored and co-organized by the French space agency CNES and attracted representatives from nearly all research teams world-wide involved in the development and active use of space-borne, *in situ*, and ground-based polarimetric observations.

Following the well-established ELS practice and with Elsevier's consent, we solicited full-size papers for a special issue of the *Journal of Quantitative Spectroscopy and Radiative Transfer (JQSRT)*. The result of this endeavor is now in the reader's hands. As usual, all invited reviews and regular papers included in this special issue have undergone the same rigorous peer review process as any other manuscript published in the *JQSRT*.

2013 Van de Hulst Award

An essential part of the ELS-XIV agenda was the presentation of the second Hendrik C. Van de Hulst Award.

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This major distinction is granted by Elsevier for exceptional research contributions in the field of Electromagnetic Scattering and is administered by the *JQSRT* via an Award Committee appointed by Elsevier. The 2013 Van de Hulst Award Committee was chaired by Professor James Hough of the University of Hertfordshire and was composed of distinguished world-renowned experts.

The 2013 Van de Hulst Award was presented to Dr. Michael I. Mishchenko “in recognition of eminence in science and for landmark contributions to electromagnetic scattering by particles and its applications.” An integral part of the official award ceremony at the ELS-XIV was the plenary Van de Hulst lecture given by Michael on June 20. That lecture formed the basis of the traditional Van de Hulst Essay which opens this special issue [13].

2012 and 2013 Waterman Awards

Starting in 2012, the Elsevier/*JQSRT* Young Scientist Award in the category of Electromagnetic Scattering is named after the eminent scientist and giant figure in this field Peter C. Waterman [14]. This award is administered by the *JQSRT* via an expert Committee appointed by Elsevier.

The 2012 Waterman award was presented to Dr. Antti Penttilä of the University of Helsinki for his outstanding contributions to the field of electromagnetic scattering by particles and particulate surfaces. The 2013 Waterman Award was granted to Dr. Fabien Waquet of the Université de Lille 1 for his profound research in the field of polarimetric remote sensing of tropospheric aerosols.

Both Awards were presented by Peter Waterman's widow Karen Waterman during the conference banquet on June 19.

Conveners

Oleg Dubovik, *CNRS/Université de Lille-1, France*
Laurent Labonnote, *Université de Lille 1, France*



Fig. 1. Participants of the ELS-XIV.

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Didier Tanré

Gérard Brogniez

Jérôme Riédi

Pavel Litvinov

Yevgeny Deriman

Fabien Waquet

Isabelle Chiapello

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Nikolai Khlebtsov, *Saratov State University, Russian Federation*

Alexander Kokhanovsky, *University of Bremen, Germany*

Anny-Chantal Levasseur-Regourd, *UPMC, Paris, France*

Daniel Mackowski, *Auburn University, AL, USA*

Thierry Marbach, *EUMETSAT, Darmstadt, Germany*

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We thank all contributors to this special issue for submitting comprehensive topical reviews and state-of-the-art original papers. Numerous reviewers have contributed their time and exceptional expertise, sometimes on a very short notice.

José Stoop of Elsevier organized and financed several social events (including the presentation of the Van de Hulst and Waterman Awards) as well as an immensely successful exhibit and distribution of previous *JQSRT* issues. Karen Waterman kindly agreed to attend the conference and present the 2012 and 2013 Peter C. Waterman Awards. Maggie L. Betancourt of Columbia University provided valuable logistical support.

Substantial funding of the ELS-XIV was provided by CNES, CNRS, ESA, the US Department of Defense, Université de Lille 1, Columbia University, and the CaPPA Labex Project. This financial assistance enabled the Conveners to sponsor many participants from China, the USA, and several Eastern European countries.

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